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THE FARMER.

SATURDAY, SEPTEMBER 28, 1833.

INFLUENCE OF THE STOCK ON GRAFTED FRUIT.

It has been a question whether the stock has an influence on the fruit of the grafted tree, so as to alter its shape, color, or quality, and render it different from the fruit of another graft of the same *variety*, set on a different kind of stock? We have been almost intuitively led to take the *negative*, though perhaps from the circumstance that myriads of trees are annually budded or grafted; and that the most intelligent cultivators procure them, expecting the fruit to come *true* to its kind. If disappointment had occurred, other means of propagation might have been employed. The pear, the apple, the cherry, and the plum, can be readily increased by sub-division of the roots,—when the young tree would be entire, free from any connection with stocks of doubtful character, and subject to no kind of variation whatever. But it appears that no such measure has been necessary. None have been stimulated to invent a better way to increase the peach and the nectarine; and all seem to be satisfied,—except a few individuals whose opinions we shall notice.

On the *affirmative* side of this question, has appeared our eminent countryman Dr. MEASE; and in an elaborate article,* including some fifteen or twenty cases, he has embodied the strongest evidence that we have seen on the subject. It is not our intention to open a controversy, much less to call in question the authenticity of his facts; but notwithstanding, we must think that a few remarks may place the matter in a broader light.

The influence of the stock on the graft may be considered in three different points of view:

1. If the stock stands in a sterile or unfavorable soil;—if it is constitutionally diseased;—or if it is mechanically injured,—the graft must suffer with the stock; but not more than it would suffer without the stock, if standing on its own roots under such circumstances; and therefore such cases cannot come within the meaning of our leading question or inquiry. Of this class, are those marked by Dr MEASE, No. 2, relative to a spotted passion-tree, which by budding communicated the disease to a healthy stock; and No. 3, relating to a scion from an old stunted tree which revived by grafting into a more vigorous plant. These cases appear to us to be quite extraneous; and if the cause of the bitter rot in the Vandevere apple, is a constitutional disease as we suspect, then that case ought also to be excluded from the evidence.

*New-England Farmer, vol. II, page 97.

2. If the stock is not entirely congenial with the graft, there will be some obstruction at the junction between the two; and the effect of this will be to increase the fruitfulness of the tree, on the same principle that a ligature of wire, or the removal of a ring of bark,—increases it. We must therefore also exclude, as not coming within the meaning of our inquiry, four more of the cases produced by Dr. MEASE, and which we will briefly enumerate:

No. 5 is from President Knight showing that peach trees on plum stocks dilate at the base, &c. No. 6 proving that pear trees are more productive on quince stocks. No. 8 showing that almond trees bear best on plum stocks. No. 14 showing from G. Lindley, the use of different stocks to render grafted trees more productive.

No. 11 is also extraneous, though not coming strictly within this class. It shows from DARWIN that two stunted and cankered pear trees were renovated by setting healthy grafts on the tops; and which, *Darwin* properly remarks, "can only be explained from a better sanguification produced in the leaves of the new buds." We have seen trees continue stunted for years, until at last leading shoots protruded, operating like the scions on the pear trees, but without the process of grafting. Trees in this torpid state are sometimes invigorated by *heading down*.

3. Whether the stock changes the form, color, or flavor of the fruit, is the inquiry before us; and the remaining instances, cited by Dr. MEASE, present a formidable array, well worthy of deep consideration. We might have been induced to adopt the inferences drawn on that side of the question, were they not opposed as well by the facts noticed near the beginning of our article as by other considerations of great weight, to which we shall now advert.

Professor Lindley, in his directions "To cause fruitfulness,"* says "A great increase of fertility is the result of grafting pears upon quinces, peaches upon plums, apples upon white thorn and the like. In these latter cases, the food absorbed from the earth by the root of the stock, is communicated slowly and unwillingly to the scion; under no circumstances is the communication between the one and the other, as free and perfect as if their natures had been more nearly the same; the sap is impeded in its ascent, and the proper juices are impeded in their descent, whence arises that accumulation of secretion which is sure to be attended by increased fertility. No other influence than this can be exercised by the [stock] upon the [scion.] Those who fancy that the contrary takes place; that the quince for instance, communicates some portion of its austerity to the pear, can scarcely have considered the question physiologically, or they would have seen that the whole of the food communicated from the alburnum of the quince to that of the pear, is in nearly the same state as when it entered the roots of the former. Whatever elaboration it undergoes, must necessarily take place in the foliage of the pear; where far from the influence of the quince, secretions natural to the variety, go on with no more interruption than if the quince formed no part of the system of the individual."

*Guide to the Orchard and Fruit Garden.

We think nothing can be clearer or more conclusive in a theoretical view than this passage; but notwithstanding, we remember the old adage, "Facts are stubborn things." There is one consideration however, which writers opposed to us, appear to have overlooked. If the stock operates on the fruit of the graft in the sense required by us, its action must be every year alike; and if the fruit be changed by it in one season, the same effect must be produced in every succeeding season. The stock, devoid of leaves and branches is less exposed to vicissitudes and incipient diseases than any other part of the tree; and the action being regular, the effect should be the same. Now in the instances given, has this been the case? The respected proprietor of the Linnæan Garden at Flushing, mentioned that peach trees on almond stocks, had *oval* fruit when the same kind on peach stocks was *round*. He has not said that this difference ever occurred but once. If it did not, or if it only occurred irregularly, the bearing of that fact on the argument is neutralized.

It is possible that particular stocks may exercise a peculiar influence; and some persons from this cause may have had opportunities for observation which never occur to others. We are therefore unwilling to call in question the information received by Dr. MEASE, at New-York, respecting the variable qualities of the Spitzenburgh apple; but we have many grafted trees of this kind; and the stocks on which they stand are all seedlings,—consequently no two alike; yet we have not discovered any difference in the flavor of the fruit, except what is undoubtedly due to other causes.

Our object in calling up this subject, is to have it more closely examined. The appearances of fruit are sometimes very anomalous; and if we search for causes it is desirable to find the right one. We have seen a published notice of pears growing on a Spitzenburgh apple tree that were *redder*, and *sourer*, and more *astringent* than the same kind of pears which grew on pear stocks; but we are assured that in three succeeding years nothing of the kind could be observed,—the fruit being as *yellow*, as *sweet*, and as *pleasant* as that on the other trees. We will mention another anomaly. Last summer our Washington plums (on one tree) were red, not deeply colored, though truly splendid. We never saw them so before, nor are they so in the present season. Neither of those singular cases can therefore with any propriety be ascribed to the influence of the stock. V.

SKETCHES OF A JAUNT IN ONEIDA COUNTY.

Oneida Institute.—It is not from a desire to find fault, so much as from a wish to provoke reform, that I mention my great surprise, on a late visit to this school, at the want of rural taste and embellishment in its grounds. I expected that the manual labor, which forms a part of its exercises, would afford practical instructions in the best models of farming and gardening; and that the ornamental branches of the latter, which every gentleman *intends* to cultivate, and which is no less instructing than captivating to youth, and the presence of which affords the strongest evidence

of comfort, contentment and social refinement, would form a prominent feature in the grounds. I had anticipated a display of rural taste and beauty, under the direction of an experienced gardener and botanist; and at least to see a beginning made to collect about the buildings, the majestic trees and humble shrubs of our forests, as well as rare and ornamental exotics. I expected no less to find a garden well stocked with choice fruits, and all the rare and useful vegetables, and their culture and propagation forming a branch of instruction. And as I am one of those who believe, that even floral beauties were not designed only to " waste their fragrance on the desert air," but that they are intended to delight the senses, refine the heart and awaken the admiration and gratitude of man toward his Creator,—to behold a brilliant display of these was among the pleasures I anticipated from the visit to a school of manual labor, whose inmates are designed to produce a benign influence by their precepts and their practice, upon the habits and happiness of society.

These expectations had probably been somewhat heightened, by having read recently, of the law which exists in some of the German states, particularly in Bavaria and Wurtemburgh, which attaches to every school a garden, and makes a knowledge of horticulture a necessary qualification in a teacher. The labors of the garden afford a recreation to the pupils in the hours of intermission, and are eminently calculated to blend usefulness and pleasure, and to win the young mind to the love of knowledge and virtue. Memory too brought to my mind, at the time, what I had heard of the order, neatness and rural beauty displayed about the manual labor schools of Fellenburgh and Pastalozzi. I rode more than sixty miles, said Professor M'Clure, (and I think I had the relation from his mouth) when travelling in Germany, on purpose to see the practical effects, in mature life, of Pastalozzi's system. Those whom he visited, and were settled in life, had been principally reclaimed from pauperism and vice, by this eminent philanthropist, and educated and taught some useful branch of labor, under his eye, and from his bounty. Botany, geology and practical gardening formed indispensable branches of study. The Professor found these pursuits of Pastalozzi, without exception, patterns of industry and sobriety, possessing the esteem of all around them, and diffusing a salutary influence upon society. Each was possessed of a small cabinet of minerals, collected by himself, a select library, and a garden, stored with the choicest vegetables, fruits and flowers. Some of these gardens, says the Professor, vied in taste and beauty with many of the celebrated gardens about Paris. The cabinet, the library and the garden, afforded useful and delightful employments, for all the hours that could be spared from labor, and left no void for ennui or gossip.

With a mind under the influence of these recollections, you may judge, Mr. Editor, of my surprise, on reaching the beautiful site of the Oneida Institute, and finding it destitute of almost every artificial grace and decoration with which my imagination had clothed it. Scarcely a tree planted that reflected credit upon either planter or nurse; not an ornamental shrub met my eye, nor a cultivated flower, save a few inferior varieties which I suspect were planted by the good housekeeper near the wall of one of the edifices; but the whole lawn abounded in weeds and apparently ill cultivated farm crops. The garden displayed more industry, but very little more taste. Onions, cabbages, the Swedish turnep and mangel wurzel, all good crops in their place, but not all adapted to garden culture, occupied the principal quarters. But we saw no fruit trees, no shrubs, nothing ornamental, useful or rare, which a gardener or amateur would take pride in showing to a friend or stranger. It exhibit the appearance of a tolerable decent market garden, and nothing more.

My traveling companion was so sadly chagrined at the bad appearance of the court and garden, that he could not be prevailed upon to accompany me to the school and farm; and we resolved to seek a solace for our disappointment, in examining the grounds of

Hamilton College—which being an older institution, we expected to find in better keeping. We arrived at the summit of Clinton-hill during vacation. An open door in one of the college buildings admitted us into a hall, from which we found an unobstructed passage to the top of the building. It was a fine day. The prospect was extensive and highly interesting. At the foot of the hill, one and a half miles distant, the neat village of Clinton showed to advantage. The intermediate slope was finely chequered with orchards, gardens and fields, redolent with the tributes of Flora and Pomona, covered with growing corn, or spotted with flocks and herds. A luxuriant landscape presented before us, for miles, exhibiting the varied beauties of husbandry, and the indications of industry and wealth,—with the valley of the Mohawk, the spires of Utica and the more distant highlands in the back ground. But when we circumscribed our view to what we considered *classic* grounds, how mortifying was the contrast. *Yonder* art and industry had done much to improve the scenery of nature: *here* they had done little but to mar it. The grounds comprise a parallello gram of some fifteen or twenty acres, in which the college buildings are situate. They have been enclosed by a fence, but it seems to be in a state of dilapidation. Trees *have* been planted; but I believe every one has been broken or is dead. Not a living tree or shrub, not a cultivated plant, save a patch of starved potatoes, could be seen within this spot, consecrated to literature and science! Old timbers, stone and rubbish were the prominent objects that arrested the eye. On our descending we observed on the outer door, as if recently cut with a penknife—"*Only three weeks more!*" "Poor little fellow, exclaimed my friend, no wonder you sighed for home, and counted the tedious weeks which confined you to a place where there is so little to interest the best feelings of your nature. God has bountifully scattered over creation a multiplicity of natural objects, to beguile the tedium of study and labor,—and to inspire us with kindness and piety;—yet from *this* spot, where they ought most to abound, they seem to have been expelled—totally expelled,—by the ruthless hand of man—by the phrenzied hand, I fear, of unrelenting religious strife!"

We were not a little compensated for our disappointment at the schools, by unexpectedly finding upon a by road, and upon the demesne of a humble unobtrusive farmer, one of the prettiest displays of horticultural taste and rural embellishment, that I have witnessed. But as my companion is a horticulturist, and sowewhat of an enthusiast in the flower garden, I shall leave to him the pleasure of describing this sequestered but enchanting spot, and hasten to close this already tedious communication, by a few cursory remarks upon

The condition of Agriculture,—which I found respectable, and in some instances very good. But generally, too great a reliance seemed to be placed upon the provisions of nature, and too little upon the artificial sources of man. I saw in many cases grounds being prepared for wheat from which a crop of this grain had just been harvested. And I was told it was common to take successive crops of corn also from the same field. These practices are manifestly bad—wretchedly bad. They are like killing the goose which lays golden eggs. They exhaust the sources of fertility which belong of right to posterity: for no grounds can long withstand such severe cropping, even with a moderate application of manure;—an article, by the bye, the value of which seemed not always to be appreciated. I saw one barn around which it had been suffered to accumulate to such an extent, that the siding, some feet above the sills, was rotting and broken in by its pressure. This man, my friend remarked, must either soon remove his old barn, or build a new one, for he cannot long get into this. Another fault in farm management is one which is too apparent in every section of our country. I mean the want of drains to carry off the surface water, and to free the soil from that which rises from below. For want of these many of the best lands remain comparatively waste and unproductive. The outlay for efficient draining, would in most cases, be amply repaid in the increased value of the two first crops. Under draining, at the depth of 30 to 32 inches, is now performed upon my farm, at less than nine cents per rod; and the contractor gets well paid,—for he averages ten rods per day. B.

For the Genesee Farmer.

DURHAM AND DEVONSHIRE CATTLE.

L. TUCKER:—*Dear Sir*—During a late journey to the east, I took some opportunity to examine several fine stocks of improved short horned Durham and Devonshire Cattle; and from the various information which I have received, I can have no doubt of the superiority of the blood of those justly celebrated animals over the common cattle of our country. And I am well satisfied that our western farmers will study their own interests by introducing them into this fine region of the state. Last year I intimated to you an opinion prejudicial to the Devonshire Cattle. I am now happy to say that further observation has corrected my views, and either pure or mixed, if judiciously selected, they are a most valuable breed, particularly for working oxen.

At some convenient opportunity hereafter, I may resume this subject, but for the information of those who may wish to purchase I will observe that Mr. Caleb N. Bement, Hotel keeper, State street, Albany, has always on hand for sale several choice Bulls, Cows and Heifers of the finest Durham stock of his own selection, and has now commenced the business of importing improved cattle and sheep. Those wishing to purchase will always obtain valuable information

respecting the different breeds of cattle, as well as excellent accommodations, at his convenient Hotel. He has given me the pedigrees of a few of his stock which I send you for publication, thinking they may be interesting to some of your readers. I have seen the cattle named, and consider them very superior animals.

Yours very truly, ULMUS.

P. S.—On my return through Canandaigua, I called to see the numerous and valuable improved Durham and Devonshire stock of Mr. Jenkins, and hope he will make his intended exhibition of them at the approaching fair at Rochester. His beautiful bull Admiral is unrivalled within my knowledge. U.

—

"YOUNG DURHAM,"

A red and white bull, four years old last August—bred by John Brentnall, of Goshen, Orange county; was got by Durham—dam Rosebud by Dishley—grand dam Red Rose, by Dishley—great grand dam, a capital short horned cow.

"Durham," an imported "Improved Durham short horned" bull, bred by Wm. Smith, Esq., of Dishley, Leicestershire, England—got by Paragon; dam Tube Rose by Lancaster—grand dam Cherry by Ladrone—great grand dam by Danby—great great grand dam by a son of Favorite, sire of the celebrated COMET, that sold at Mr. C. Colling's sale for 1000 guineas.

"Dishley," the sire of the dam and grand dam of Young Durham, is also an imported "Improved Durham short horned" bull, bred by Wm. Smith, Esq., of Dishley, England, was got by Lancaster, who sold at Mr. Robt. Colling's sale for 621 guineas—dam Cattles Cherry, by a son of the celebrated *Comet*—grand dam by Marske, by Favorite, the sire of Comet—Lancaster by Wellington—Wellington by Comet, &c., &c., &c. Lancaster's dam, Moss Rose, out of Red Rose by Favorite—dam by Favorite—grand dam by Ben—great grand dam by Foljambe—great great grand dam by Hubbock.

"SUPERIOR,"

A roan bull, two years old in July last, was got by Frederick—dam Yellow Rose, by Young Denton, (imported in 1817, from Mr. Wetherell's yard,)—grand dam Arabilla, by North Star, (imported from Mr. Wetherell in 1821,)—great grand dam Aurora by Comet!!—great great grand dam by Henry—great great great grand dam by Danby.

"DULCIBELLA,"

A white cow with mottled neck, broad hips and short legs, seven years old last March, bred by Mr. Whitaker, of Otley, England, and imported into this country in 1828, by Mr. Rodman of New Bedford—was got by the celebrated bull Frederick—dam Delicia, by Major—grand dam by Cormus, son of Meteor—great grand dam, by Marske, son of Favorite, sire of Comet—great great grand dam by Wetherell's bull—all herd book animals.

"DORINDA,"

Is white, with some red on her head and neck, three years old in December next, bred by Mr. Rodman—was got by Carlos—dam Dewdrop, got in England by "Charles," said to be the best bull now in England—dam Dulcibella, by Frederick—grand dam Delicia by Cormus, sire of Meteor—great grand dam Marske—great great grand dam by Wetherell's bull.

"GARAFELIA,"

Is nearly white, two years old last January—was got by the imported bull, "Devonshire," bred by Mr. Whitaker, and took the premium, at Otley, in 1828—dam, imported cow, "Galatra," (also from Whitaker's) by Frederick—grand dam Graceful by Major—great grand dam by Cornus—great great grand dam by Denton—great great great grand dam by Wetherell's bull.

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Dear Sir,—If you think proper to publish the foregoing pedigrees in the Genesee Farmer, they are at your service, and if it should meet the Editor's approbation, I will furnish others now in my possession. The above cattle are now my property—except young Durham. I have sold one half of him.

Will you have the goodness to cause my name to be placed on his list of subscribers.

Your's truly, CALEB N. BEMENT.

THE MUSCOVY DUCK,

Its name to the contrary notwithstanding, is, according to Baron *Cuvier*, "originally from South America, where it is still found in its wild state, and where it perches on trees. It is now very common in our poultry yards, where it mixes with the common duck."

THE COMMON GOOSE,

"Which has acquired all sorts of colors in our poultry yards, originates from a wild species that is grey, with a brown mantle undulated with grey, and an orange colored beak."—Bar. *Cuvier*.

THE COMMON TURKEY

"Was introduced into Europe from America in the sixteenth century. The size of this noble bird, and the goodness of its flesh have rendered it extremely common.

A SECOND SPECIES OF THE TURKEY,

"However, (*Meleagris ocellata,*) has lately been described, almost equal to the Peacock in the brilliancy of its colors, and particularly in the sapphire colored spots, surrounded with circles of gold and ruby, which decorate the tail. It was captured in the bay of Honduras."—Bar. *Cuvier*.

For the Genesee Farmer.

ON GARDENING—No. XIII.

The operations in a garden, which ought now to be performed are very multifarious. In general, garden operations are deferred till spring; but, although the vernal season may be considered as the proper time for *adorning* our gardens, it is by no means the best calculated for pulverizing the soil, or rendering them more fertile by the different processes of cultivation. By allowing the soil to remain without being *dug* or *trenched* in the fall, we deprive it of the benefits derived from the atmosphere, the influence of which is very considerable, and tends in no small degree to render the soil productive. Therefore it is absolutely essential that every vacant portion of the garden be dug and exposed to the atmosphere. For want of attention to this, it may be truly said that we are robbing the garden in no small degree by depriving it of the benefits of pulverization. This also is the proper time for applying manures, and if they are applied in a rancid state, their invigorating powers will be inhaled by the soil, and their noxious qualities exhausted previous to cropping the ground in spring.

During the month of October many garden crops will require our attention, and when orchards are intended to be planted no period of the year can be so proper for performing the operations with a certainty of success.

We frequently find fruit trees infected with moss, &c., which is very injurious to their health, and tends to derogate the fruit and render them, less productive. When this takes place on a desirable fruit, every means should be used to eradicate this nuisance, and the fall is the best time for adopting the proper remedies, which are scraping the bark, and applying a wash of soap suds and lime, divesting the tree of all rotten or decayed branches, thinning even the healthy ones in order to produce new and healthy shoots.

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The Dahlia (Georginia).—This beautiful ornament of our gardens will be very apt to suffer during the month of October from frosts, but I do not consider it advisable to take them up until the beginning of November, when they should be divested of the earth on the roots, well dried on a fine day and packed in dry sand in the cellar, or any convenient place where they will not suffer from frost during winter.

—

Draining.—When a garden has been formed in a situation where it suffers from excessive moisture, and when the site or local position will afford a declivity, the operation of draining will be attended with the most beneficial results—for stagnant water may be considered as injurious to all the useful classes of plants, by obstructing perspiration and intro-susception, and thus diseasing their roots. Drains are formed in various ways; by *tiles* manufactured purposely, by *stones*, and by *brush-wood*. The latter material will answer the purpose for a number of years—and will in general, for this section of the country, be found the most available. For draining a garden the general method adopted is to form one main drain of a width proportionate to the size of the garden or degree of wetness, with diverging drains of smaller dimensions to the various parts of the garden where they are required; bringing the materials to such a depth as that the process of cultivation may not be impeded.

Very respectfully, ALEX. GORDON.

Rochester Nursery, Sept. 26, 1833.

CIDER.—A friend requests us to suggest to farmers, as there is an abundant crop of apples this season, whether it would not be for their interest to select the fairest, soundest, best flavored fruit, and manufacture that only into cider, throwing the residue to the pigs, which it is proved will thrive upon fruit. The selection may be made with very little trouble, when the apples are gathered. This would save them the expense of extra casks, and the trouble of carrying to market cider which would not pay the expense of cartage. As much less cider is now drank, than formerly, it ought to be of a superior quality. Such an article will command a good price.—*Spring. Rep.*

THE SYCAMORE.—This is the largest tree of the American forest, and the trunk of one of unexampled magnitude is now actually on exhibition in New-York. It grew on the banks of the Mohawk, Oneida county, and was cut down about two years since. Thirty-one yoke of oxen were required to remove the trunk alone. The area of its base is so ample that its possessor occupied it as a booth, or tavern, for some time in the vicinity of Utica, when it was purchased for the purpose of transporting it to Europe for exhibition. The original bark still coats its exterior, and the interior has been scooped out and furnished as a saloon with furniture, so that it will accommodate upwards of forty persons.—*Bos. pa.*

For the Genesee Farmer.

On the Extirpation of Weeds.--No. III.

The Canada Thistle (*Cnicus arvensis*) is one of our most formidable weeds. Much has been already written to induce our farmers to be more attentive to its advances; various cases of successful treatment have been reported; and it has been clearly shown that those who determine to destroy it, may succeed with reasonable exertions.

In traveling through the country, it is rather discouraging however to observe in how many fields this pestiferous plant is allowed to perfect its seed, and to send it by the winds over the neighborhood. In the edge of grain fields near the fences, long rows of it have been permitted to stand undisturbed; and in some meadows it has remained uncut till after its seeds had ripened and passed off. In other places, I have seen fallows intended for wheat in which this thistle had full occupancy; and which in the ensuing year must form the greater part of the crop. Such proceedings ought not to be allowed. Those who have not Public Spirit enough *naturally*, ought to have it imparted *artificially*; and it is high time that the whole community was aroused by some means to prevent the further progress of this nuisance.

We are indebted to DAN BRADLEY, President of the Onondaga Agricultural Society, for several valuable essays on this subject; and there is reason to hope that his personal influence will stimulate the members of that Society to such exertions in the cause, that others may profit by their examples.

When this thistle grows in large patches, or occupies a whole field, *to plough it frequently and thoroughly is unquestionably the best plan.* Some interesting cases of this kind, by *Thomas Tufts* of Le Roy may be found in the current volume of the Genesee Farmer at page 66, and 229. I can give another proof of the advantage of this method over that of mowing or pasturing. A near neighbor of mine, had a field almost entirely overgrown with this weed when he came into possession three or four years ago; but by cropping with corn or potatoes, it is now nearly or quite extinct, except along the fences. *The necessity of removing the fences in such cases, cannot be too strongly urged.* Farmers are averse to ploughing where they cannot reap; but after having subdued the pest in the field, it is better to *set in the fence* a rod or two, and follow up the attack with the plough even to the edge of the beaten road. It is best and cheapest to do thorough work.

For the advantage of turning up the roots with a *deep* furrow, an article by my neighbor A. ALLEN may be profitably consulted at page 204.

The value of brine on small patches where the plough cannot be conveniently introduced, or where only a few stalks remain in a field, ought not to be forgotten. See a note by E. A., Genesee Farmer, vol. 2, page 100. From experience I can say that the effect of salt is far less in wet weather than in drought. If we apply brine, it destroys the thistle at once. If we apply dry salt, we must wait till the rain dissolves it, and then much of its efficacy is lost.

Small patches may often be also very conveniently destroyed by straw as recommended by JOHN M'VEAN in the last volume of the Gen. Far. page 308.

The first patch of Canada Thistles that I ever saw was about a mile east of Levana in the autumn of 1804. The patch remains there still, though since greatly enlarged; and to that small beginning, as far as my observations have extended, we are indebted for the myriads that have overspread the southern parts of this county. I have been told it originated from one or more seeds, carried in hay from the eastward, and which dropped out while a traveler was baiting his horses at the road side.

In the year 1807, I saw Canada thistles in Hector, which had doubtless been introduced among grass seed. A correspondent of the Genesee Farmer, who signs J. in the current volume, at page 14, also mentions sowing grass and thistle seed together. These cases show what great losses may be sustained by sowing foul seed.

The history of the Canada thistle is both curious and instructive. More than two centuries ago (according to Lord Kaims) a French priest sent it as a curiosity from the banks of the St. Lawrence to a botanic garden in Paris; and in a few years it spread over the greater part of Europe. It appears not to have made much progress through the thick forests of this country; but, like the Norway Rat, which until about a century ago, remained in its native burrows in Persia,—it is in a fair way to inherit the fairest parts of the earth.

D. T.

Greatfield 9 mo. 10, 1833.

For the Genesee Farmer.

WHEAT.

Wheat it is perhaps generally known is not a native of America; by the discovery of this continent maiz or Indian corn was given to Europe; by the same event wheat was here introduced. The first wheat sown in America, was three or four kernels found in some rice, by a negro attached to the army of Cortes, and consequently about 1500. A Spanish lady carried it from Mexico to Peru, and at Quito the earthen vessel is still shown in which the precious seed was brought from Europe. From this small beginning it has spread over the American continent, and is the most extensively diffused and widely cultivated of the cereal plants on the surface of the globe. In the equinoctial parts of the world, wheat will not grow except at an elevation of from four to six thousand feet above the level of the sea, while the maiz seems to delight in the sun, only requiring a deep rich soil, where the roots can find moisture and aliment. The abundant produce of wheat in the equinoctial regions favorable to its growth, is such as would astonish a farmer in the most favored sections of our northern clime, as will be seen from the statement of M. Abad, an ecclesiastic of the church of Valladolid, who assured Baron Humboldt, that he had taken at random from a field of wheat forty plants, when he found that each seed or root produced from forty to sixty, and even seventy stalks, and that the number of grains in the ears frequently exceeded 100, or 120, and the average amount appeared to be 90; some even exhibited 160. In that country the ordinary wheat harvest is 40 for 1; and in some favored situations equals 55 or 60 for 1. In Western New-York, which may be considered one of the best wheat districts in the United States, we have found by careful examination, that few wheat plants can be found in the most favorable years producing fifteen stalks, and the average number in the best piece will not exceed from five to seven. We have repeatedly gathered and counted the largest and best ears we could any where find, and we found the best to equal 90 to 114 kernels in an ear;—the white flint, however, which is probably our most valuable wheat, will not in ordinary cases average 40; but the number of ears will be greater than in any other kind—in the number of kernels, the red chaff exceeds the flint. Thus it would seem, that were other circumstances equal, the south would be able to grow wheat to an extent, which would prevent its profitable production in the north. Wheat in the South American equatorial provinces, and in Mexico, becomes of no value when kept over the year, and though of an excellent quality when new, it is only in such a state, that it can enter into competition with our northern flour in any quarter. Our southern states labor under the same difficulties in some degree, and the flour of the western states which finds its principal market at N. Orleans, if stored for the summer soon becomes bitter and unpalatable, while no such result in ordinary cases, need be apprehended at Albany or New-York. It is from the temperate regions of our country and the globe, then, that an adequate supply of this valuable grain must always be derived, and those stores found, to guard against those temporary failures, which are always liable elsewhere to recur.

W. G.

Otisco, Sept., 1833.

For the Genesee Farmer.

VEGETABLE PHYSIOLOGY.

It has been laid down as a principle in Vegetable Physiology that the *scantier* the *supply of nourishment, the earlier will a plant propagate its kind.* Gen. Far. vol. 5, page 260. It must be allowed that some of the facts brought in illustration are correctly stated; and yet there are very important exceptions to the rule. It is an old saying that "a peach tree will bear in three years from the stone;" but I have never seen one in a fit state, except in rich ground well cultivated. When it stands neglected in a poor soil, I doubt if it would fruit in twice that time; and I would extend this remark to all seedling fruit trees.

It has also been said "the *richer* the land the *longer* all crops will be in coming to maturity." Gen. Far., vol. 3, page 251 and 261. All my observations are directly to the reverse. In 1816, a small field of mine was planted with Indian corn, but only a part of it was dressed with manure from the barn yard: both parts planted at the same time. The summer was unusually cold; and an early autumnal frost damaged more or less, nearly all the corn in the country. The corn that stood on the manured part of that field, was so far advanced as to be but slightly injured, while the unmanured part was so green as to be nearly destroyed.

Our fields that are peninsulated by swales, often furnish great varieties of soil; and whatever kind of grain may grow in these alluvial deposits, it is uniformly more backward than in the dry parts of the same field. Is it the rich vegetable mold that causes this backwardness? It cannot be; for soils of this description when moderately dry, are always *warm*, and favorable to early vegetation. Then these authors appear to have mistaken one thing for another; and as-

cribe the retarded maturity of vegetables to the richness of the soil, when it ought to have been charged to the water.

Does half starved Indian corn ripen sooner than good corn? Our experiments of the present year prove the contrary. I have a field of corn that contains a poor ridge; and on this, the crop is more backward than in the fertile parts of the field.

It has also been said that corn on newly cleared land ripens late. This is only so in particular seasons. New land suffers more from drouth than old land which can be deeply ploughed and better tilled; but newly cleared land in moist seasons produce the earliest crops. Two of my neighbors at different times and in different places, had corn to ripen in ninety days, while on old land it seldom ripens in less than one hundred and twenty days.

The same principle extends to other crops. One of my neighbors, a very observant farmer, says that stable manure was doposited on one of his fields in heaps, which owing to some cause, were badly spread, and soon after the whole was sowed with wheat. At harvest the place where every heap had stood, could be readily distinguished by the greater ripeness of the grain on those spots.

Wheat commonly ripens first in a field on the knolls or ridges; but it will still ripen there first, when those dry parts are manured, and rendered as fertile as the rest of the field.

The theory under review, if adopted, would introduce great innovations. The gardener to raise early melons and potatoes must apply no more compost! and farmers who inhabit mountainous or hilly districts, where the period between the last vernal and the first autumnal frosts,—is short, must plant only their poorest fields! I think they may learn better things. Let their corn fields be well drained, so that the water of springs from below, and of rain from above, shall be quickly discharged; for hardly any thing retards the growth of corn so much as surplus water; then bring on their barn yard manure, and its fermentation in the soil will warm it; and the abundant food for plants which it yields, will cause the crops to grow fast, and ripen early. Vegetation will be advanced several weeks, and many a fine crop by this measure, may be preserved from the frost.

A FARMER.

For the Genesee Farmer.

CURIOSITIES OF NATURAL HISTORY.

Elater noctilucus.—[An insect] rather more than an inch long; dusky brown, with a cinereous down; *a convex, yellow, round, shining spot on each side of the thorax* near its posterior angles; elytra marked with lines of small punctures. From South America.

During the night, the *thoracic spots* diffuse a very strong light, sufficiently bright to enable one to read the smallest character, particularly if several of the insects be placed in the same vase. By it also the women of the country pursue their work, and Ladies even use it as an ornament, placing it in their hair during the evening The Indians fix them to their feet in their nocturnal journeys. An individual of this species accidentally transported to Paris in some wood, in its larva or pupa state, completed its metamorphosis there, and greatly astonished the inhabitants of the faubourg Saint-Antoine by its extraordinary light.—LATREILLE.*

Other Lampyrides are distinguished by a remarkable character, either common to both sexes, or peculiar to the females, that of being phosphorescent, whence the names of glow-worms, fire flies, &c., which are given to these insects.

The luminous matter occupies the inferior part of the last two or three annuli which differ in color from the rest, and are usually yellowish or whitish. The light they diffuse is more or less vivid, and greenish or whitish, like that of the different kinds of phosphorus. It seems that they can vary its action at pleasure, a fact particularly observable when they are seized or held in the hand. They live a long time in vacuum and in different gases, the nitrous acid, muriatic and sulphurous gases excepted, in which they soon expire. Placed in hydrogen gas, they sometimes at least, detonate. They continue to live after the excision of this luminous portion of their abdomen, and the part thus separated preserves its luminous property for some time, whether it be submitted to the action of various gases, be placed in vacuum, or left exposed to the air. The phosphorescence depends on the softness of the matter, rather than on the life of the animal. When apparently extinct, it may be re-produced by softening the matter with water. The Lampyrides emit a brilliant light when emersed in warm water, but in cold water it becomes extinguished.—LATREILLE.*

From the Albany Argus.

ALBANY HORTICULTURAL SOCIETY.

The fourth anniversary of the Albany Horticultural Society was celebrated on Saturday, 14th inst. at the Mansion House, kept by Jno. P. Bradstreet, where were exhibited the following fruits, flowers, vegetables, &c.

From the garden of Isaac Denniston—½ bushel Pears, two varieties, viz: Seckel and Rousselet De Rheims, or Spice pear. ½ peck Plums, five varieties, viz: Chancellor gage, Red gage, Banker gage, Royal blue, and a very fine seedling Plum. 2 doz. clusters Grapes, viz. Sweet water and Frontinac.

From the garden of D. B Stingerland.—1½ peck Peaches, six varieties, viz: Galland, Chancellor, Malacaton, Teton De Venus, Old Mixon and Lemon cling, and a number of different varieties of Seedling peaches. 1½ peck Pears, four varieties, viz: Broca Bergamot, Summer Bergamot, Vergalieu and Bon Chretien. ½ bushel Apples, five varieties, viz: Samson apples, Fall Pippin, Craam, Surprise and Lady apple. Five varieties Grapes, viz: Winne, Burgundy, Sweet Water, Golden and White Chasseles. Three varieties seedling Plums.

From the garden of Aaron Thorp.—1 doz. superior Muskmelons, four varieties, viz: Nutmeg, Citron, Persian and Pine Apple. 2 very fine and large Watermelons. 2 large Citrons; and a very fine specimen vegetables, Cellery, &c. &c.

From the garden of T. W. Ford.—1 peck Pears, three varieties, viz: Vergalieu, Orange, Bergamot and St. Germain. 2 or 3 quarts yellow seedling gage Plums.

From gen. R. Westerlo.—A basket of fine seedling Plums.

From the Albany Nursery of Messrs. Buel and Wilson.—250 varieties of splendid double Dahliahs. A large basket full different kinds Flowers. ½ doz. Melons; and a specimen of the India Rareripe Apples.

Presented by Leveret Cruttenden.—A glass Vase, with a number of beautiful white Cocoons, the products of his Silk Worms; and also a specimen of the white China mulberry leaf.

From the garden of Jeremiah Smith.—A number of fine large yellow Egg Plums.

From the garden of col. J. K. Paige.—A large variety of vegetables.

From the garden of gen. S. Van Rensselaer, jr.—Rare and fine vegetables, consisting of ten different kinds, some of them new and choice varieties.

From the garden of Theophilus Russel.—1 doz. heads of very fine and large Cellery.

From Wm. Prince & Sons, Flushing, Long Island.—Twenty varieties very splendid double Dahliahs, labelled with their different names. 2 superior Williams' Bon Chretien pears, of large size and fine flavored. 1 cluster, weighing 24 oz. Syrian white grape, a new variety, and of exceeding fine flavor.

At half past 11 o'clock, A. M., the doors were opened for the admission of spectators and visitors, and a large number of ladies and gentlemen attended the exhibition.

At 2 o'clock, P. M. the annual Address was delivered by the Rev. Dr. Willson.

At 3, a party of gentlemen sat down to a dinner prepared by Mr. Bradstreet, in the excellent manner and style for which his house is celebrated. Among the guests, were the Governor, the Recorder of the city, and other persons of distinction. Not having memorandums, we are not prepared to describe the decorations of the room and table; but we cannot omit to notice the large and well formed boquets of flowers from the Albany Nursery, and particularly the Pyramid of Dahliahs, from six to eight feet in height, and upwards of three feet in circumference at the base, comprising 250 varieties of the double Dahlia and other flowers, and forming altogether a most splendid combination, very imposing and beautiful in appearance. It was designed and arranged by judge Buel, exclusively of the flowers from the Albany Nursery. Jesse Buel, Esq. President of the Society, presided, assisted by Isaac Denniston, esq. Vice-President, and by D. B. Slingerland, P. V. Shankland, and A. Gallup, esqs. committee of arrangements. After the cloth was removed, a number of toasts were drank, of which the following have been obtained for publication:

By Jesse Buel, esq. President of the Society.—*The Garden*—May it be our pride to render it, what it once was in Eden, the abode of innocence and bliss.

By Gov. Marcy.—*State Horticulture*—With a diligent hand to pluck up the weeds of vice; a liberal one to sow the seeds of private and public virtues; a sunny exposure for the flowers of genius and merit:—and the fruits of industry, health and wealth, for skilful and laborious cultivators.

By Isaac Denniston, esq.—*Horticultural Societies*—A free interchange of information and knowledge of improvements in the arts among the various societies, the most effectual mode of attaining their important object.

By D. B. Slingerland, esq.—*Agriculture, Horticulture and Floriculture*—The most useful, rational and delightful employments of the human family.

By A. Gallup, esq.—*Agriculture, Horticulture, and Mental-culture*—May the two former never languish for want of the latter.

By Col. P. V. Shankland.—*The United States*—Destined to become, with experience and cultivation, the garden and nursery of the world.

By Col. McKown.—*Agriculture and Manufactures*—The one to be respected, and the other protected.

By J. Van Buren, esq.—*Agriculture, Commerce and Manufactures*—Each to be respected—all to be protected.

Harmanas Bleecker, esq. being called upon for a toast, said:

It gives me pleasure to have this occasion to offer a slight tribute of respect to a foreigner, who has just left this city after gratifying his friends by a visit of some days; and who, after passing some years in a diplomatic capacity in this, is now about to return to his own country. With polished manners, a cultivated mind, and discriminating and just views concerning the United States, he has won here the sweet fruit of "golden opinions," and will return to Holland, we hope, to be useful and honored.

*M'Murtrie's Translation.

Mr. Bleecker then proposed the following toast, which was cordially received:

RUTGER B. HUYGENS—*A climbing* plant from a land of gardens.

By Solomon Southwick. *Horticulture*—The first and most beautiful of *Arts*, instituted by the first, most beneficent, and most perfect of beings: for it was "the Lord God" who first "planted a *Garden* eastward in *Eden*; and there he put the man whom he had formed." May this momentous fact in sacred history strike so deeply into the hearts of "Horticulturists," and of all others, that the United States shall become a second Eden, in the fruits of piety to God and love to man.

By E. Livingston, Esq. *The Grape*—Its juice maketh the heart of man glad.

By Col. Van Schaick. The virtuous Cultivators of the Soil—

"*Motion* is in their days—*Rest* in their slumbers,
And *Cheerfulness* the handmaid of their toil."

By Wm. Seymour, Esq. *The majestic Hudson*—Uniting two sisters, Albany and New-York, in the bonds of affection and interest—May they never be separated by shoals and quicksands, but live in harmony and union under the care of an enlightened government and a benignant Heaven.

By Judge l'Amoureux. *Albany Horticultural Society*—May its efforts to preserve existence be seconded by the citizens who are to be benefited by its labors.

By D. P. Marshall, Esq. *Patronage*—The only effectual protection to any interest: May the Horticultural Society realize that protection in its fullest extent.

By Mr. J. A. Tracy. *Horticulture*—It has realized the divine gift to man of the Fruits of the WHOLE Earth.

By Solomon Southwick, Esq. *The memory of De Witt Clinton*—The illustrious patron of Horticulture, Agriculture, and of every useful Science and Art: Just and benevolent as a man; fearless and independent as a Magistrate; great and unrivalled as a Statesman; pure and incorruptible as a patriot.

Premiums were awarded to the following gentlemen:

Largest and best variety of vegetables, Stephen Van Rensselaer, jr.

On the next largest and best variety, John K. Paige.

On the largest and best variety of fruit, D. B. Slingerland.

On the next largest andbest do. Isaac Denniston.

On the largest and best variety of flowers, Buel & Wilson.

On the next best, Jeremiah Whalen.

Discretionary premium on cellery, Theophilus Russel.

Honorary premiums to T. W. Ford, Aaron Thorp, R. Westerlo, J. Smith, L. Cruttenden, and Wm. Prince & Sons.

From the Frankfort (Ky.) Commonwealth.

AN EXTRAORDINARY NATURAL PRODUCTION.

We have now in our office, (where our citizens and farmers are requested to call and see it,) a most singular species of corn. The history of this rare freak of nature is substantially as follows: About three years ago, a Mr. Carrico, living in Gallatin county, Kentucky, planted some of the common Indian corn in the neighborhood of a swampy piece of land, which was grown over with a thick strong grass resembling sedge grass. In the fall of the year, when he was gathering his corn, he was surprised to find that ears of corn were growing and ripening upon the grass, and that on the blades of grass separate grains were growing. Struck by the singularity of the circumstance, he carefully preserved the grains and planted them in the next spring. The result was extraordinary, producing a growth partaking of the qualities both of the grass and the corn, and superior to both as forming a third article very advantageous to stock farmers. The stalks in our office present most remarkable appearances. The tassel does not bear any resemblance to the corn tassel, but is more like the heads of coarse grass—the blades are long and very slender, resembling more the blades of oats than of corn. Upon the extremities of these blades, separate grains of corn, enclosed in a husk presenting the appearance of hazle nut burs, are found, and to the bodies of the stalks more perfect ears of corn are attached. The stalks themselves are long and slender, and not unlike the wild rye of the country, only stronger and more substantial. We believe that this grain is at least one thing new under the sun,and unlike most novelties, it promises to be useful.

From the New-England Farmer.

AGRICULTURE, HARVESTING CORN, &c.

MR. EDITOR—The science of agriculture is not yet well understood in New-England,although many intelligent farmers are beginning to devote much of their attention to it, and many valuable improvements and discoveries have been made. Farmers have much to learn, and much more than they are generally willing to admit. To advance this most important science, and spread light among the farmers, the publication of the "*New-England Farmer*" has already exerted the most salutary influence, and we trust that the great variety of theories, experiments and useful remarks which enlightened agriculturists may communicate for your paper, will have a certain tendency to dissipate the clouds of mental darkness, which still hang over the prospects of the most useful class of citizens in the community. After the lapse of half a century, those who may then till the soil, will probably look back with deep regret and astonishment, at the gross ignorance under which we now labor, in our agricultural pursuits.

Those who have had an opportunity to examine the fertile, fruitful fields in England,France, and some other countries, will not feel disposed to take offence at my remarks. There the state of agriculture is, perhaps, half a century in advance of its state in this country. The science of agriculture is not of easy attainment—it embraces much practical and theoretical knowledge, and the knowledge of a great variety of subjects having an intimate connexion with it; and much study, close reflection, and long experience, are necessary to its acquisition. In respect to myself, sir, I am ready to confess my ignorance of this science, and the few years in which I have been engaged in agricultural pursuits, and the information acquired in professional studies, tend to force upon my mind the conviction of this ignorance; and at the same time I must admit that I can acquire but very limited information, from mere practical farmers, who are resolved to follow the old beaten path in which their fathers trod. New experiments, the best kinds of seeds, improved breeds of cattle, new methods of obtaining manures, &c., they generally consider *silly notions* of mere theorists, and some even ridicule Agricultural Societies, which have been attended with the most auspicious results, in this as well as in other countries.

Those, however, who make useful experiments may, possibly, by giving the same publicity, do some benefit even to that class of farmers.

I therefore, at this time,communicate to you but two experiments, (new in this quarter, but not so in some of the southern and middle states,) made on my farm in this vicinity.

I noticed a statement in the N. E. Farmer, by which it appeared that the early topping or cutting corn stalks, proved, upon fair experiment, to be injurious to the ears of corn, and that the corn not topped at all was heavier than that which was topped. All the farmers in New Hampshire, I believe, are in the habit of cutting the stalks while the corn is in the milk, or before the inner part of the kernel is hard. A little reflection convinced me that this practice is wrong. I this year raised between two and three hundred bushels, and suffered no part of the corn to be topped. After the corn was fully ripe, I commenced by having the corn cut close to the ground, tied in small bundles, and put into small shocks by the side of the corn field, to dry, and thence conveyed to the barn; a practice which in common seasons will be beneficial—but afterwards I found the corn so fully ripe and dry, standing in the field, that I had it cut close to the ground and conveyed in small loads to the barn, husked immediately and put into a granary made for the purpose, standing on posts, properly ventilated. The result was, that my corn was very heavy, large, perfectly sound, and "as sweet as a nut." Many ears were found from twelve to fourteen inches in length. But I plant a large kind of yellow corn; the kernel is very large. Many have expressed an opinion that they never tasted bread, made of it, so sweet and of such fine flavor. I have never known any corn equal to it, although it is well known that we never had a season more favorable to corn. The cattle appear to relish the stalks as well as those cut green—there is no loss in this particular—but a gain, in respect to the under stalks,often left exposed in the field after the corn is gathered.

There can scarcely be a doubt but what the corn will ripen earlier and be heavier, by suffering the tops to remain until the corn is *fully ripe*. It is not fully ripe until the inner part of the kernel becomes rather hard, or is "out of the milk," as farmers say. Then the corn may be topped without injury. Nature does nothing in vain. It is idle to say that the ear of corn derives no nourishment, while green, from the top stalks. Every part of the stalk, leaves and all, are necessary to the growth and maturity of the ear, and the saccharine juice gently oozes into the cob, and from the cob into the kernel until fully ripe. It would be as rational to contend, that the amputation of an arm would not injure a man, as that the cutting the green stalk would not tend to wither the green ear of corn. I am aware, Mr. Editor, that this doctrine stands opposed to the prejudices of farmers generally, yet I fully believe that fair experiments will, not many years hence, induce them to support it.

Another practice among farmers deserves censure. They often pile up their corn in large heaps in the barn in order to have what is called "huskings." In this pile there are green materials, green stalks,green ears, and foul matter,which, after laying a short time, produce fermentation, the whole heap becomes warm, and tainted with the noxious gases or effluvia that penetrate every part. The corn is afterwards husked and often placed in rooms not well ventilated. The corn may be sound and look finely—the bread palatable and called good, very good. But the question whether it might not have been rendered *far better and sweeter* with proper management, seldom, perhaps, enters the farmer's mind.

One of your correspondents, an enlightened and practical farmer, informs me that he was fully convinced, that corn would not ripen so soon by topping it while green. This is also against the general opinion, but not, therefore, incorrect. He also stated, that he topped a portion of a cornfield, before the corn was out of the milk, in order to feed his oxen, a practice very common; and that when he gathered his corn, that portion so topped, was inferior to his other corn in the same piece, the soil being equal.

WM. CLAGGETT.

Portsmouth, N. H. Feb. 13, 1832.

PRUNING THE VINE.—Well, neighbor, how does your Isabella promise this season? Not a single grape. Ah! how is that? We sent for Mr. W. last fall, and he pruned it so closely that the two branches looked like naked sticks, and now we shall not have a grape to satisfy our palate.

Close pruning is too common in this country. In summer only the unproductive shoots should be taken out, and not these unless they produce too much shade.—*N. Y. Farmer.*

A friend informs us, that on the premises of Mr. GEORGE REX, Jr. at Willow-Grove, where several plum trees are encumbered with an abundance of fruit, they are also densely adorned with blossoms, as blooming and refreshing in appearance as in spring.—*Germantown Telegraph.*

From the British Farmer's Magazine.

DESCRIPTION OF THE SMITHFIELD CATTLE SHOW.

Thorpelands, near Northampton, January 11, 1832.

Sir—A friend of mine, and a supporter of your Magazine, requested that as I should be at the Smithfield Cattle Show, and he was prevented from attending, I would give you a description of it for insertion in your next number.

The show, altogether, was a very good one. I do not before recollect to have seen so many good animals in classes 1 and 2, for oxen, and class 6 for cows. There were no animals in classes 3 and 4, for steers, and 5, for cows, that attracted notice. The show of sheep was good; but I do not take much interest in sheep, fed without restriction, (as all the Downs are,) as I conceive that feeding sheep with corn or cake, can never turn to any profitable account; and therefore they ought not to have it. There were pigs, as usual, so extraordinarily fat, at such early ages, with their heads so buried in their carcases, as to give them quite a ludicrous appearance.

The breeders of Durhams viewed the exhibition of cattle with much satisfaction, for, although there were very fine Hereford oxen, there was a greater number of fine Durhams.

Persons not going from home are apt to fancy their geese swans. Graziers and breeders of cattle ought to attend the shows within their reach, to prevent their falling into this error. I showed a Hereford ox in class 3, and a Durham in class 4, at the last Smithfield show. I got commendation, but, as I expected, no prize. With these animals I got prizes at Lord Althorp's show at Brampton, in September; but getting prizes at country shows, and at Smithfield, where you have to contend against all England, are two very different things. Besides, I have not that very superior pasture land which some of my grazing friends have, who occupy pastures in Stanton Low, near Stony Stratford, and in the rich vale of Aylesbury. When I have contended against such, it has been by keeping animals in the house all summer, which I do not like, as it is a great deal of trouble, and an enormous expense. For good winter stall feeding, I will yield to no one, having good hay and oil-cake, and as fine crops of Sweedish turneps and mangel wurtzel as the country produces. I have sent, this season, from my stalls, eighty well fed animals to Smithfield, and have about fifty more to send.

I cannot at all make up my mind, and feel it will be very difficult for any other person to decidedly and justly say, which of these two—unquestionably the best of the largest breeds of cattle in the kingdom—the Durhams and the Herefords, is really the best. As I graze both breeds, and feel assured that I have no prejudices or partialities for either, I will take this opportunity of giving my opinion of their different merits, and which, for different purposes, I prefer. For my general grazing I like Herefords best, because I believe them to be the most hardy, and because I can at all times, procure as many good breed ones as I want, which is not the case with Durhams. But for stall feeding, I prefer well-bred Durhams, because I have found them to get the greatest increase of weight; to become the most evenly fat carcases, without being patchy, (as many Herefords are apt to be,) and thus paying better than any other breed, for the great expense of feeding in the stalls. This was my opinion ten years ago, and I see no reason to alter it. I have lately heard complaints from butchers, of ulcers being found in the inside of some Durhams. I fear, from observation and experience, that there must have been something wrong in the constitutions of some of the celebrated animals, from which this breed has sprung. If I am right in my conjectures, it will be necessary for the Durham breeders to pay particular attention to breeding from animals possessing good constitutions.

Wishing success to your very useful publication, I remain, sir, your obedient servant,

C. HILLYARD.

FATTENING CATTLE.

As many farmers depend much upon the sale of fat cattle, for the successful prosecution of their business, it becomes an important question with them, how the greatest amount of fat may be put on an animal at the least expense. That many erroneous opinions prevail upon the subject is evident from the fact, that while many farmers raise and sell beef cattle, so as to afford a handsome profit, others are obliged to give it up as a *bad business*. It is generally admitted that nothing can be made by fattening cattle on Indian corn. We believe true economy requires it should be done chiefly on grass, or other green food, and roots. Beef fattened in this way will not be so firm or of so good quality as when fed with corn; but the difference in the market price does not compare with the difference in the expense of feeding. There is no doubt that pumpkins may be profitably fed to fattening cattle—but *more* profitably to milch cows. Potatoes, turneps, ruta baga, and mangel wurzel, are the roots on which the farmer should chiefly depend for fattening beef, in order to render the business at all profitable, and we believe with a proper use of these, it may be made the best part of the farmer's business. Ruta baga is, in our opinion, a more profitable crop than either of the others mentioned; though we doubt whether a given quantity will go as far in fattening beef as the same quantity of potatoes. An animal put into the stall and fed on potatoes, with hay and a little salt, without any water, will perhaps fatten as well as in any other way. They should, we are confident, have no water when fed chiefly on potatoes, whether confined to the stall or the yard. We put up a cow the 15th of November, which had been milked till the first of October, and was in no more than common store order. She was fed with from three pecks to a bushel of potatoes a day, kept clean and rubbed often with the card. She was kept till she had consumed thirty bushels of potatoes, and did not leave the stall till led out by the butcher. She was lightly tallowed, but the beef was of the first quality. When put up she would not sell for over $16, and when killed was worth to the consumer $31. We believe that the *Long John* potatoes may be raised in common seasons at an expense to the farmer of not over six cents per bushel—consequently those fed to the above cow did not cost the grower over $1,80; which with hay and salt might bring the cost of feeding, aside of labor, to 3 or 4 dollars. The expense of feeding on grain of any kind must have been much more, though the quantity of tallow would have been greater. A custom prevails in France of feeding cattle, for a short time previous to slaughtering, upon a kind of sour food, prepared by making a thick paste of rye meal and water, letting it stand till it ferments and becomes sour, then diluting with water and adding a quantity of cut hay. Cattle are said to thrive remarkably on this mixture, though if kept upon it too long it impairs their digestion and destroys their appetite.—*Farmer's Journal.*

NEW DISEASE.

A very fatal disease is said to prevail at Baton Rouge, La. among horses, cattle and hogs. The first symptoms are seen in swellings, which generally appear about the head and neck, and between the fore-legs. If relief is not immediately obtained by the use of calomel and purgatives, with copious bleeding, the disease is quickly fatal. On being opened the swelled parts discharge a slimy yellowish or white fluid. Animals attacked are said to be out of danger as soon as the bowels are loosened. On being opened after death, the gall bladder is found very much enlarged. Great numbers have died of the disease, some farmers having lost five or six horses.—*Ib.*

FATTENING HOGS.

A popular work on agriculture says, "The business of fattening hogs is usually performed from the commencement of October. Some farmers, and those who understand their true interests, commence somewhat earlier. The beginning of September, however, is sufficiently early to make them fat, provided they be of proper breed, before the weather becomes extremely cold." We wish farmers would ponder upon the propriety of this course. We believe very much is lost by neglecting to fatten hogs while the weather is best fitted for the business. In severe cold weather hogs cannot be expected to fatten as fast as while it is warmer.—*Ib.*

AGRICULTURAL MEETING.

The inhabitants of Wheatland and its vicinity, are respectfully notified that the annual meeting of their Agricultural Society, will be held at Garbuttsville, on Saturday the 12th of October, at 10 A. M.

A general attendance is expected, and each one is requested to do something towards making the exhibition useful and interesting.

Farmers will please bring a portion of their stock and a sample of the various products of their farms, and Mechanics each one, some of the skill of their respective professions.

The Ladies are respectfully invited to attend, and honor the exhibition with specimens of the various household arts.

The Committees will please prepare their reports in season, as much of the interest and usefulness of the Society will depend upon them.

JOHN BUTTERFIELD, *Sec'y.*

ELECTION NOTICE.

Monroe County, Sheriff's Office. Rochester, Sept. 12, 1833.

A GENERAL Election is to be held in the County of Monroe, on the 4th, 5th, and 6th days of November next, at which will be chosen the officers mentioned in the notice of the Secretary of State, of which a copy is annexed.

E. M. PARSONS, Sherif.

State of New-York, Secretary's Office. Albany, Aug. 10, 1833.

Sir—I hereby give you notice, that at the next general election in this State, to be held on the 4th, 5th, and 6th days of November next, a Senator is to be chosen in the Eighth Senate District, in place of Albert H. Tracy, whose term of service will expire on the last day of December next

Notice is also given, that at the said election the following proposed amendments to the Constitution of this State will be submitted to the people, viz:

1. "For electing the Mayor of the the City of New-York by the electors thereof"

2. "For authorising the Legislature to reduce the duties on salt"

JOHN A. DIX, *Secretary of State.*

To the Sherif of the County of Monroe.

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N. B. The Inspectors of Election in the several towns in your County will give notice of the election of Members of Assembly, and for filling any vacancies in County Offices which may .

ALBANY NURSERY.

ORDERS for Trees and Plants from this establishment will be received and forwarded by L. Tucker, Proprietor of the Genesee Farmer. The collection embraces, in addition to the ordinary fruits of our country, many foreign Apples, Pears and Peaches, described as of the first quality in the London Horticultural Catalogue, and received principally from the Society's Garden. Also, a few hundred *Morus multicaulis*, or Chinese mulberry, at 50 cents, or half the ordinary price, some hundreds of the *Ailantus*, or Tree of Heaven, and two thousand *Horse Chesnuts*, of suitable size for planting. A discount will be made to those who buy to sell. In the ornamental department, there is more than 300 select varieties of the Rose, and nearly the same number of varieties of the splendid double Dahlia. Trees and plants carefully packed, and forwarded without delay.

BUEL & WILSON.

Albany, Sept. 10, 1833. sep 14 r4t

From the New-England Farmer.

ON DEEP AND FREQUENT PLOUGHING.

"I entertain no doubt of the utility of deep ploughing; not at once, in our lands in general, but by an increase of two or three inches at every annual ploughing, until the earth be stirred and pulverized to the depth of ten or twelve inches. Indian corn planted in such a mass of loosened earth, would not, I am persuaded, ever suffer by ordinary drouths. Like a sponge, it would absorb a vast quantity of rain water, and become a reservoir to supply the want of that and all other plants. Nothing is more common in a dry summer, than the rolling of the leaves of corn; and that circumstance is often mentioned as an evidence of the severity of the drouth. This rolling of the leaves of Indian corn, is the consequence in part, of scant manuring, but still more of shallow ploughing. Few, perhaps, are aware of the depths to which the roots of plants will penetrate in a deeply loosened earth. A gentleman much inclined to agricultural inquiries and observations, informed me, near fifty years ago, that seeing some men digging a well, in a hollow place planted with Indian corn, then at its full growth, he stopped to examine how far its roots had descended, and he traced them to the depth of five feet. The soil was an accumulation of earth, which had run or been thrown into the hollow.

"The seeds of the common turnep, sown in warm weather, and on soil sufficiently moist, I have known to vegetate in about eight and forty hours; and in only four or five days afterwards, I found the plants had sent down roots to the depth of four or five inches."—*Mr. Pickering's Address to the Essex Ag. Soc.*

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Sir John Sinclair gives the following MAXIMS RESPECTING THE PROPER DEPTH OF PLOUGHING.

1. The depth to which land ought to be ploughed, must first be regulated by the depth of the soil. On thin soils, more especially on a rocky substratum, the ploughing must necessarily be shallow; but when the soil, whether light or strong, will admit of it, the ploughing ought to be as deep as a pair of horses can accomplish; and at some seasons, it is advantageous to plough it even with four, particularly at the commencement of every fresh rotation.

2. The depth ought likewise to depend on the means of improving the soil; for when the land is poor, and the means of enriching it are scanty, the depth of ploughing ought to be in proportion to the quantity of manure which can be obtained.

3. Deep ploughing is highly advantageous upon every soil, excepting those where the substratum is an ochry sand. In fact, such sands are scarcely worthy of being cultivated, unless in situations where much alluvial compost, (marsh mud, &c.) or short town manure, can be procured.

4. It is a general rule never to plough so deep as to penetrate below the soil that was formerly manured and cultivated, excepting upon fallow, and then only when you have plenty of lime or dung to add to, and improve the new soil.

5. Many farmers recommended, when fallowing land, to go as deep as possible with the first furrow; by which the subsequent furrows will be more easily done, and to expose the soil to the winter's frost, and to the summer's heat, but when the land is ploughed in the spring for a crop of oats, *a strong soil* cannot be ploughed in safety, above five or six inches.

6. Deep ploughing is advisable on moorish cold soils, as it affords a greater scope for the roots of plants to procure nourishment, admits the superabundant moisture to subside from them, and prevents the summer drouth from making an injurious impression on the growing crops; for, on such land, shallow ploughing exposes vegetation to be starved or drowned in wet weather, and to be scorched or withered in dry.

7. It is unnecessary to plough deeper, when the seed is sown, than where there is a fair probability of the different kinds of plants sending their roots; and as beans, clover and turneps, the only tap-rooted kinds usually cultivated in this country, seldom send their shoots above seven or eight inches down into the soil, and the culmiferous species not so far, it is probable, from these circumstances, that from seven to eight inches may be deep enough for all the purposes of ordinary culture. Occasionally, however, ploughing even ten inches in the course of a rotation, during the fallow process, is advisable.

Deep ploughing is not to be recommended. 1. When lime or marl has been recently applied, as they have such a tendency to sink, from their weight, and the moisture they imbibe. 2. Where turneps have been eaten off by sheep on the land where they were grown. 3. When grass only two or three years old, more especially where it has been pastured by sheep, is broken up; because owing to the extreme condensation of the soil, by the trampling of the sheep, a furrow, even of a moderate depth to appearance, will make the plough penetrate below the staple that had been cleared, by the culture given during the previous fallow. By this means, myriads of the seeds of annual weeds are raised to the surface, where they vegetate, and materially injure the crop cultivated, besides replenishing the soil with a fresh supply of their own seeds. In all these cases from four to five inches will be found sufficient. And 4. If land is infested with natural grasses, which generally run much on the surface, the first ploughing should not be deeper than is necessary to turn up the roots of the grasses that may be destroyed.

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ADVANTAGE OF DEEP PLOUGHING.

1. Bringing up new mold is peculiarly favorable to clover, beans and potatoes; and, indeed, without that advantage, these crops usually diminish in quantity, quality and value.

2. Deep ploughing is likewise of great consequence to every species of plant, furnishing not only more of nourishment to their roots, but above all, by counteracting the injurious consequences of either too wet or too dry a season. This is a most important consideration, for if the season be wet, there is a greater depth of soil to absorb the moisture, so that the plants are not likely to have their roots immersed in water; and in a dry season it is still more useful, for in the lower parts of the cultivated soil, there is a reservoir of moisture, which is brought up to the roots of the plants, by the evaporation which the heat of the sun occasions.

3. By deep ploughing also, the ground may be more effectually cleared of root weeds of every description; in particular, it is the best mode of eradicating thistles.

4. By deep ploughing, animal and vegetable manures, which have such a tendency to rise to the surface, are properly covered. This cannot be done by shallow ploughing, in consequence of which much of the value of such manure is entirely lost.

5. By deep ploughing a heavier crop is raised than can be got from a shallow furrow. An intelligent farmer indeed, after pointing out that deep ploughing increases the staple of the soil, keeps the roots of the corn from being injured by wetness, and also enables the crop longer to resist drouth, adds, "*I have ever found deep ploughing attended with good crops, when ridges, shallow ploughed, in the same field were but indifferent,*" which seems a decisive proof in favor of deep ploughing.

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The celebrated Arthur Young gives the following rules relative to ploughing.

1. An additional depth should first be gained in autumn, that successive change of seasons may take effect in atmospheric influences, before any seed is ventured in the raw stratum first brought up.

2. The quality of that stratum should be examined; it is sometimes sterile, by reason of an acid discoverable by boiling in water, and putting that water to the test of blue infusions.

3. Animal and vegetable manures cannot be buried; at whatever depth they are deposited, their constant tendency is to raise the atmosphere.

4. Fossil manures are extremely liable to be buried, having a constant tendency downwards. Chalk, marl and clay, are sufficiently soluble, or so soluble with water, as to sink in a regular mass, and are sometimes found much below the depth of the plough.

5. In soils of a poor hungry quality, there should be some proportion observed between the depth of ploughing and the quantity of manure usually spread; but this does not hold good on better soils.

6. Soils are rarely found that ought not to be ploughed, in common, six inches deep; many ought to be stirred eight inches, and some ten.

7. One deep ploughing (to the full depth) should be given once in twelve, eighteen, or twenty-four months; if this be secured, shallow tillage is in many cases preferable to deep working oftener, especially for wheat, which loves a firm bottom.

GEOLOGICAL COURSE OF CHOLERA.

Mr. Boubee has made some researches into the geology of the countries through which the cholera has passed, from which he remarks, that this epidemic has spread most speedily, and with its greatest intensity, through those districts where the tertiary and alluvial earths are the most extensive, whilst it appears to have been propogated with great difficulty, to have lost its intensity, and even to have been extinguished in those parts where the older and particularly the primordial formations predominate. This coincidence of the course of the cholera with particular geological districts, agrees with the observation pretty well established, that the circumstance of humidity and evaporation favor the development of this disease. In fact, tertiary and alluvial earths have, to a remarkable degree, the property of imbibing water, which being again yielded by a prolonged evaporation, produces a humidity of the atmosphere entirely dependent on the nature of the soil. The older formations, on the contrary compose ordinary compact rocks which being impermeable, can neither absorb moisture nor present it to the atmosphere by evaporation. Sometimes the old formations and volcanic depositions present rocks that are friable or decomposed in particular places, in which cases they will resemble the more recent ones in absorbing and affording moisture, and this circumstance may explain some of the exceptions to the general rule of the cholera adhering in its progress to the modern formations.—*Jour. de Chimie Med.*

POPULATION OF FRANCE.—In 1751 the population was 18,000,107; in 1820, above 30,000,000; and in 1832 32,560,943. In 1698, the total income of the country was 40,800,000l.; in 1780, 160,440,000l.; in 1790, 186,200,000; in 1810,250,800,000.; in 1820,294,480,000.; and in 1830, 352,000,000. At the present moment, after deducting the rates and taxes, it is estimated at 264,000,000l. In the beginning of the present century, the country was taxed 23,560,000l. under Charles X. in 1829,41,218,000l., and under the cheap government of Louis Phillippe, by the grace of barricades, his Most Citizen Majesty," 46,400,000l.

The population of London in 1750 was 676,250; in 1801, 9000,000. and now with the suburbs, it amounts to a million and a half.

Happiness.—Happiness does not so much depend upon our circumstances, as the agreement between them and our dispositions.

Gravity.—Gravity belongs more to the ass than the horse. It oftener conceals ignorance than indicates knowledge.